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CHARX connect modular, Type 2, Infrastructure charging socket, 32 A , 480 V AC, Premium, without single-core wires, locking actuator: 12 V, 4-pos., square, Rear panel mounting, M5 thread, housing: black, with temperature sensors, with LED (common cathode connection), for charging electric vehicles (EV) with alternating current (AC), PHOENIX CONTACT logo, IEC 62196-2

Product description

Infrastructure charging socket for charging electric vehicles (EV) with alternating current (AC), compatible with type 2 Infrastructure Plugs, for installation at charging stations for E-Mobility (EVSE)

Your advantages

- Protected against overheating with precise temperature measurement
- Flexible mounting and easy maintenance with plug-in cables
- Available with your logo on request - for consistent branding of your charging station
- Waterproof and dirtproof due to fully molded contacts
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Uniform, space-saving installation space

Commercial data

Item number	1164299
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	*****
Product key	XWBADC
GTIN	4063151176662
Weight per piece (including packing)	441.9 g
Weight per piece (excluding packing)	441.9 g
Customs tariff number	85366990
Country of origin	DE

EV-T2M3SO12-4P-P - Infrastructure charging socket



1164299

<https://www.phoenixcontact.com/in/products/1164299>

Set consists of

EV-T2M3SO-CAP - Protective cap

1202424

<https://www.phoenixcontact.com/in/products/1202424>



CHARX connect modular, Type 2, Protective cap, Accessories, circular, for strain relief and touch protection, IEC 62196-2

EV-T2M3SO12-4P-P - Infrastructure charging socket



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Technical data

Product properties

Product type	Infrastructure charging socket
Product family	CHARX connect modular
Application	for charging electric vehicles (EV) with alternating current (AC) compatible with infrastructure charging plugs
Design (Infrastructure charging socket)	square
Design (Protective cap)	circular
Type	Premium
Design	with temperature sensors with LED (common cathode connection)
Affixed logo	PHOENIX CONTACT logo
Charging standard	Type 2
Charging mode	Mode 3, Case B
Customer variations	On request

Electrical properties

Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable and reconnectable
Temperature monitoring	PTC system (DIN EN 60738-1)
Type of charging current	AC 3-phase
Charging power rating	22 kW (32 A, 3-phase)
Charging power	max. 26.6 kW (3-phase)
Charging current	max. 32 A AC (3-phase)

Power contact

Number	5 (L1, L2, L3, N, PE)
Rated voltage	480 V AC
Rated current	max. 32 A

Signal contact

Number	2 (CP, PP)
Rated voltage	30 V AC
Rated current	2 A

LED function

Application	to display the charging status
Position	in the frame of the protective cover
Connection type	common anode

Temperature sensors (PTC chain)

Sensor type	PTC chain
Standards/regulations	DIN EN 60738-1
Diagnostics	Short circuit, cable break

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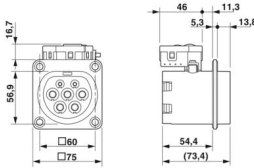
Attachment point	Sensor for the AC contacts
Measuring range_resistance	800.00 Ω ... 300.00 kΩ
Resistance	max. 10 Ω
Recommended measured current	≤ 1 mA (U _{max} = 24 V DC)

Locking actuator

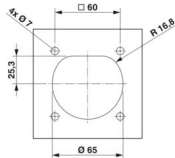
Locking actuator	12 V, 4-pos.
	Top center position
Possible power supply range at the motor	9 V ... 16 V
Maximum voltage for locking detection	30 V
Typical motor current for locking	0.2 A
Reverse current of the motor	max. 1 A
Max. dwell time with reverse current	1000 ms
Recommended adaptation time	600 ms
Pause time after entry or exit path	3 s
Service life insertion cycles	> 10000 load cycles
Lock recognition	available
Mechanical emergency release	available
Ambient temperature (operation)	-30 °C ... 50 °C
Cable length	0.5 m
Cable structure	4 x 0.5 mm²

Dimensions

Infrastructure charging socket

Dimensional drawing	
Width	75 mm
Height	91.71 mm
Depth	87.95 mm

Bore dimensions

Dimensional drawing	
Width	60 mm
Height	60 mm

Protective cap

EV-T2M3SO12-4P-P - Infrastructure charging socket



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Width	64 mm
Height	57 mm
Depth	24 mm

Material specifications

Color (Housing)	black (9005)
Material (Housing)	Plastic
Material (Contact surface)	Silver

Cable/line

Cable type	without single-core wires Single-core wires for AC and communication are available separately, see accessories
Single wire, cross section	6.00 mm ²

Single-core wires for locking actuator

Cable length	0.5 m
Cable structure	4 x 0.5 mm ²
Single wire, material	PVC
Single wire, color	BU/RD, BU/GN, BU/YE, BU/BN
External cable diameter	1.60 mm ±0.20 mm
Cable resistance	≤ 37.1 Ω/m

Single-core wires for PTC temperature sensors

Cable length	0.5 m
Cable structure	5 x 0,5 mm ²
Single wire, material	PVC
Single wire, color	BN/GY BN/YE/GN
External cable diameter	1.60 mm ±0.20 mm
Cable resistance	≤ 37.1 Ω/m

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

Environmental and real-life conditions

Ambient conditions

Degree of protection (Infrastructure charging socket)	IP44 (plugged in)
Degree of protection (Protective cover)	IP54 (see accessories)
Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	5000 m (above sea level)

Standards and regulations

Standards

Standards/regulations	IEC 62196-2
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Mounting

Mounting type Infrastructure charging socket	Rear panel mounting (0 to 90 degree frontal inclination possible)
Mounting type Protective cover	Rear panel mounting (available separately)
Mounting hole diameter	7.00 mm (ø)
Fixing screws	M5 thread
Screws included in the scope of delivery	none

EV-T2M3SO12-4P-P - Infrastructure charging socket

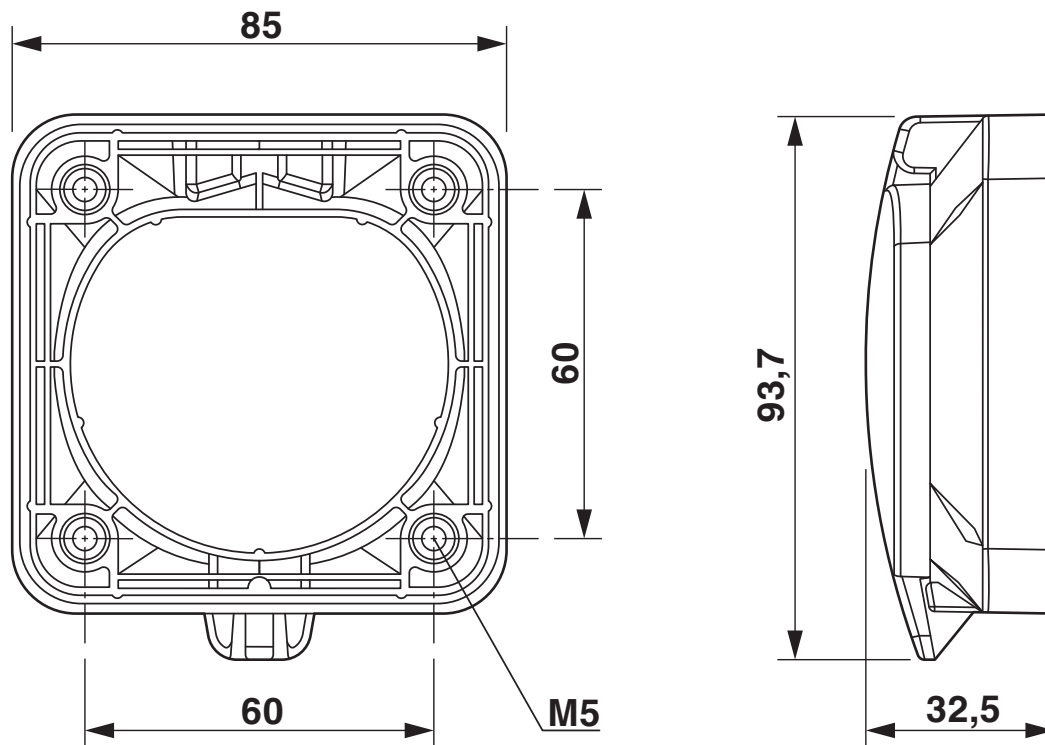


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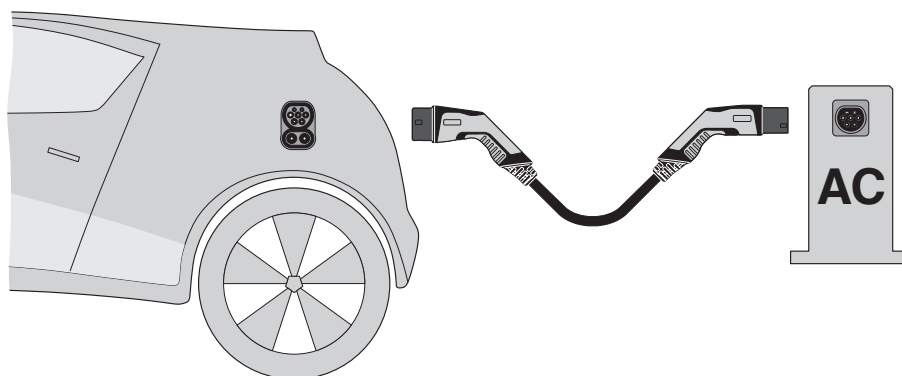
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Drawings

Dimensional drawing



Schematic diagram



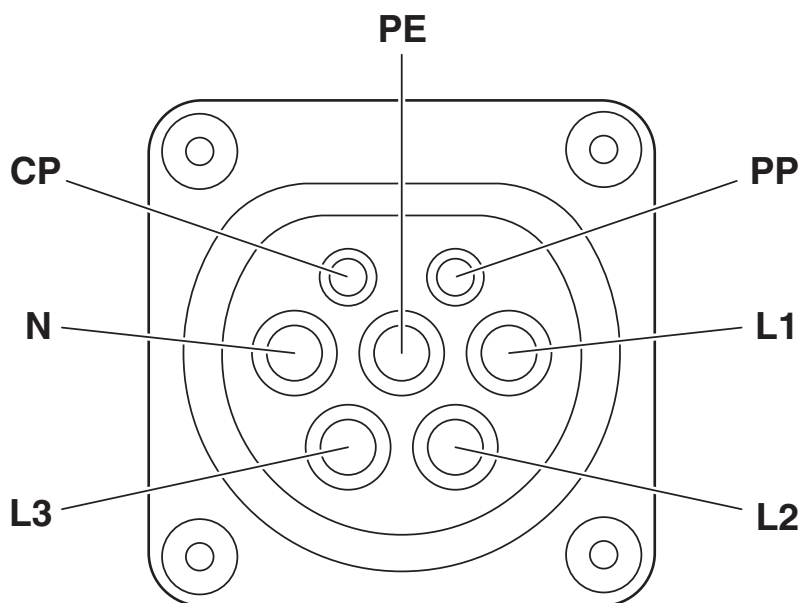
Operating instructions

EV-T2M3SO12-4P-P - Infrastructure charging socket

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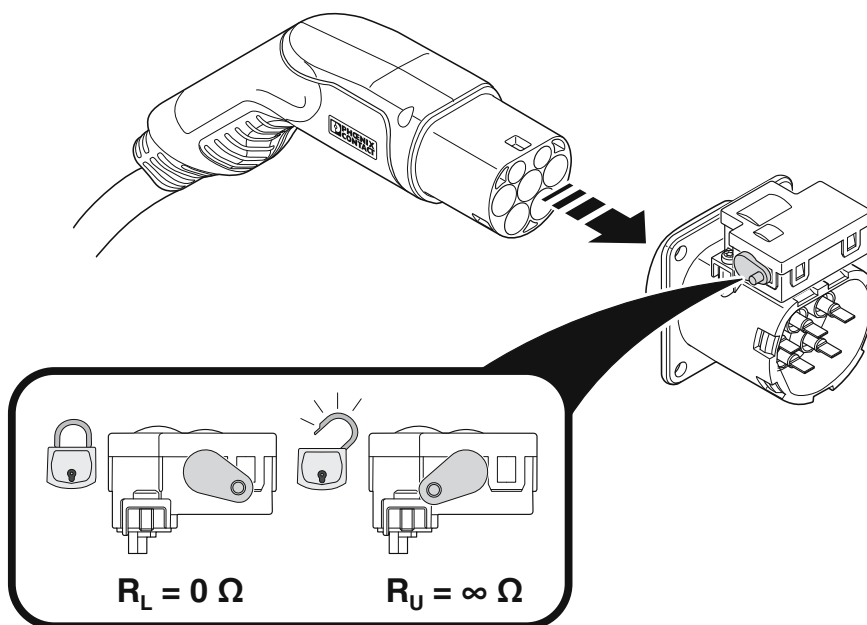
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Connection diagram



Pin assignment of infrastructure charging socket

Schematic diagram



Position of the emergency unlocking lever on the locking actuator

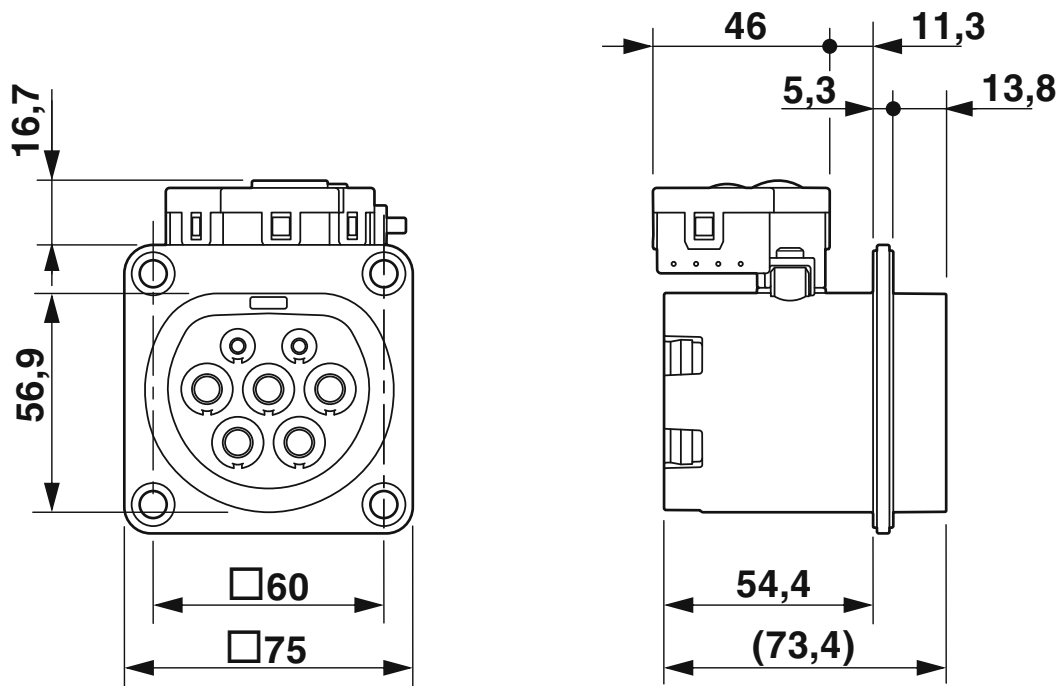
EV-T2M3SO12-4P-P - Infrastructure charging socket



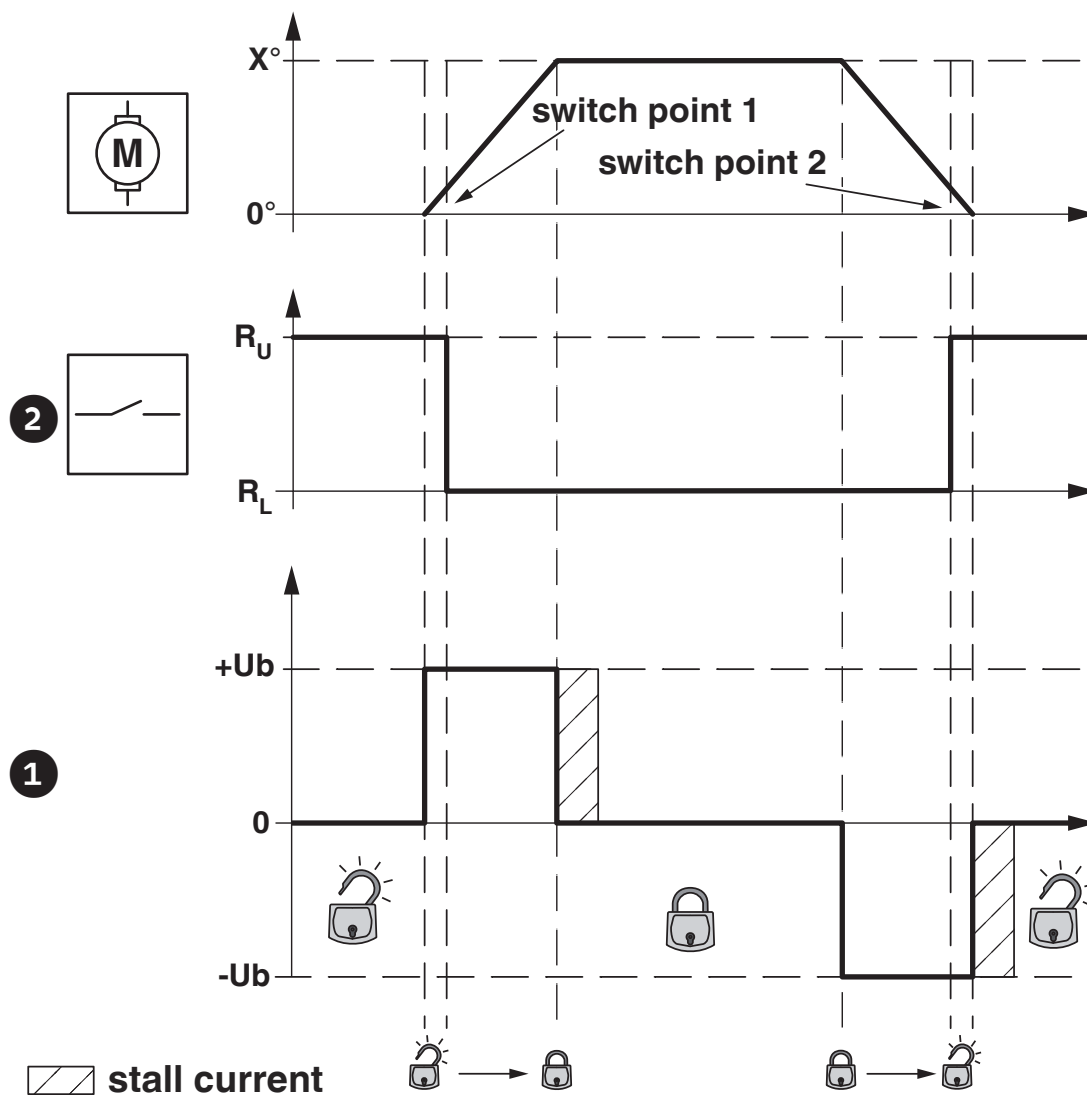
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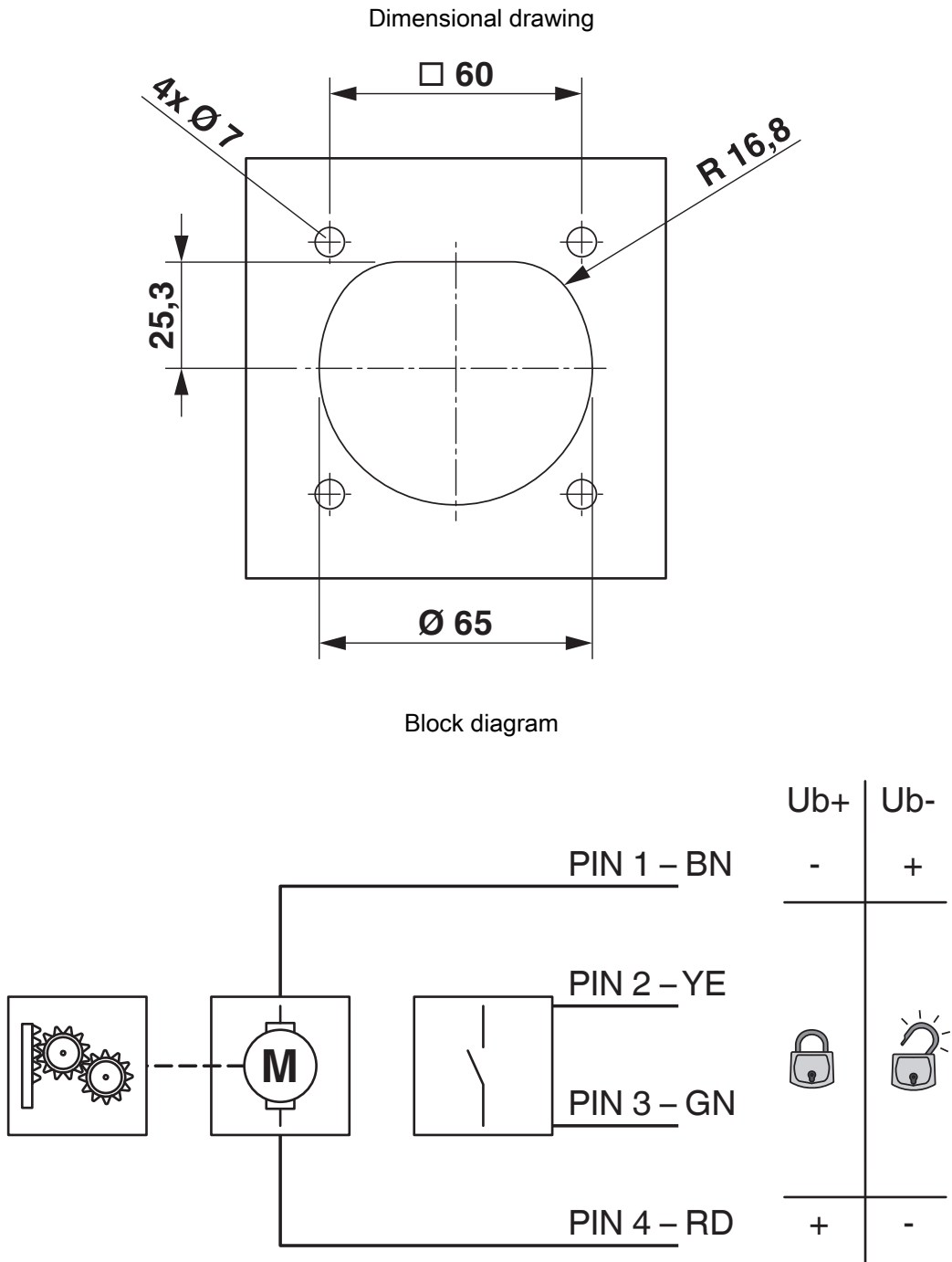
Dimensional drawing



Schematic diagram



Locking states of the locking actuator



Block diagram of the locking actuator

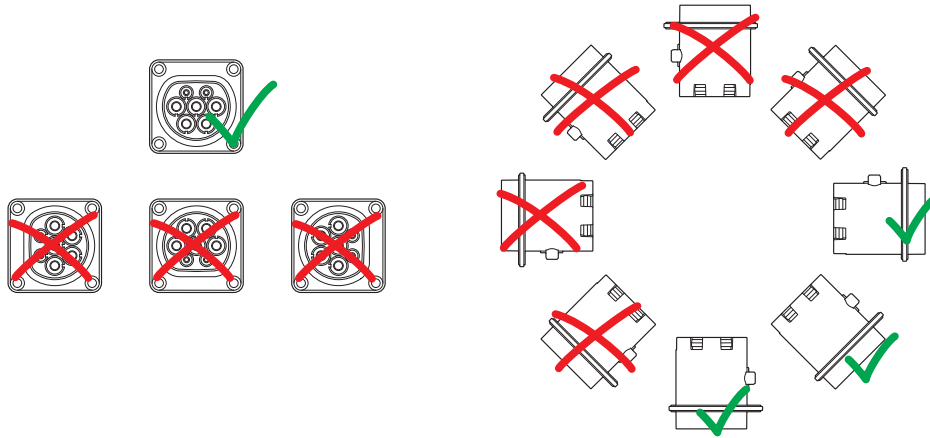
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Schematic diagram



Installation positions

Classifications

ECLASS

ECLASS-11.0	27144706
ECLASS-12.0	27144706
ECLASS-13.0	27144706

ETIM

ETIM 9.0	EC002898
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UNSPSC

UNSPSC 21.0	39121800
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-10
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	3dc759bd-b4c6-4661-aa94-67b4e4e7353b

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Accessories

EV-LABEL-C-SO - Label

1315521

<https://www.phoenixcontact.com/in/products/1315521>

CHARX connect, Label, Accessories, For AC type 2 infrastructure charging socket and for AC type 2 infrastructure charging plug, DIN EN 17186



EV-T2SOC-P - Protective cover

1164297

<https://www.phoenixcontact.com/in/products/1164297>



CHARX connect modular, Type 2, Protective cover, Accessories, Premium, square, Front mounting, M5 thread, with self-locking mechanism, with LED (common cathode connection), for attaching to infrastructure charging sockets, Embossed PHOENIX CONTACT logo, IEC 62196-2

EV-T2M3SO12-4P-P - Infrastructure charging socket



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EV-T2M3SOW-1AC32A-0,3M6,0E - Cable set for infrastructure charging socket

1164343

<https://www.phoenixcontact.com/in/products/1164343>



CHARX connect modular, Type 2, Cable set for infrastructure charging socket, 32 A , 250 V AC, Accessories, Single wires, length: 0.3 m, Plug-in mounting, with slip-on sleeve at one end, Only for connection to second-generation infrastructure charging sockets from Phoenix Contact, IEC 62196-2

EV-T2M3SOW-3AC20A-0,3M2,5E - Cable set for infrastructure charging socket

1164355

<https://www.phoenixcontact.com/in/products/1164355>



CHARX connect modular, Type 2, Cable set for infrastructure charging socket, 20 A , 480 V AC, Accessories, Single wires, length: 0.3 m, Plug-in mounting, with slip-on sleeve at one end, Only for connection to second-generation infrastructure charging sockets from Phoenix Contact, IEC 62196-2

EV-T2M3SO12-4P-P - Infrastructure charging socket



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EV-T2M3SOW-3AC32A-0,3M6,0E - Cable set for infrastructure charging socket

1164362

<https://www.phoenixcontact.com/in/products/1164362>



CHARX connect modular, Type 2, Cable set for infrastructure charging socket, 32 A , 480 V AC, Accessories, Single wires, length: 0.3 m, Plug-in mounting, with slip-on sleeve at one end, Only for connection to second-generation infrastructure charging sockets from Phoenix Contact, IEC 62196-2

EV-T2M3SOW-1AC32A-0,7M6,0E - Cable set for infrastructure charging socket

1164344

<https://www.phoenixcontact.com/in/products/1164344>



CHARX connect modular, Type 2, Cable set for infrastructure charging socket, 32 A , 250 V AC, Accessories, Single wires, length: 0.7 m, Plug-in mounting, with slip-on sleeve at one end, Only for connection to second-generation infrastructure charging sockets from Phoenix Contact, IEC 62196-2

EV-T2M3SO12-4P-P - Infrastructure charging socket

1164299

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EV-T2M3SOW-3AC20A-0,7M2,5E - Cable set for infrastructure charging socket

1164361

<https://www.phoenixcontact.com/in/products/1164361>



CHARX connect modular, Type 2, Cable set for infrastructure charging socket, 20 A , 480 V AC, Accessories, Single wires, length: 0.7 m, Plug-in mounting, with slip-on sleeve at one end, Only for connection to second-generation infrastructure charging sockets from Phoenix Contact, IEC 62196-2

EV-T2M3SOW-3AC32A-0,7M6,0E - Cable set for infrastructure charging socket

1164365

<https://www.phoenixcontact.com/in/products/1164365>



CHARX connect modular, Type 2, Cable set for infrastructure charging socket, 32 A , 480 V AC, Accessories, Single wires, length: 0.7 m, Plug-in mounting, with slip-on sleeve at one end, Only for connection to second-generation infrastructure charging sockets from Phoenix Contact, IEC 62196-2

EV-T2M3SO12-4P-P - Infrastructure charging socket



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EV-T2M3SO-CAP - Protective cap

1202424

<https://www.phoenixcontact.com/in/products/1202424>



CHARX connect modular, Type 2, Protective cap, Accessories, circular, for strain relief and touch protection, IEC 62196-2

EV-T2M3SO-CAP-REMOVER - Removal tool

1286836

<https://www.phoenixcontact.com/in/products/1286836>



CHARX connect modular, Type 2, Removal tool, Accessories, for removing the protective cap for strain relief and touch protection, which is mounted on the back of the infrastructure charging sockets

EV-T2M3SO12-4P-P - Infrastructure charging socket



1164299

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CHARX SEC-1000 - AC charging controller

1139034

<https://www.phoenixcontact.com/in/products/1139034>



CHARX control modular, AC charging controller, IEC 61851-1, operating mode: Stand-Alone, Client, interface: CHARX control modular system bus, Connectable peripheral devices: Energy meter, RFID, DC residual current detection, DIN rail mounting

CHARX SEC-3000 - AC charging controller

1139022

<https://www.phoenixcontact.com/in/products/1139022>



CHARX control modular, AC charging controller, with Embedded Linux system, IEC 61851-1, operating mode: Stand-Alone, Client, Server, interface: Ethernet (2 x), CHARX control modular system bus, MICRO-USB type C, communication protocol: OCPP 1.6J, Modbus/TCP, MQTT, Connectable peripheral devices: Energy meter, RFID, DC residual current detection, DIN rail mounting

EV-T2M3SO12-4P-P - Infrastructure charging socket



1164299

<https://www.phoenixcontact.com/in/products/1164299>

CHARX SEC-3050 - AC charging controller

1139018

<https://www.phoenixcontact.com/in/products/1139018>



CHARX control modular, AC charging controller, with Embedded Linux system, IEC 61851-1, ISO 15118, operating mode: Stand-Alone, Client, Server, interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C, communication protocol: OCPP 1.6J, Modbus/TCP, MQTT, Connectable peripheral devices: Energy meter, RFID, DC residual current detection, DIN rail mounting

CHARX SEC-3100 - AC charging controller

1139012

<https://www.phoenixcontact.com/in/products/1139012>



CHARX control modular, AC charging controller, with Embedded Linux system, IEC 61851-1, operating mode: Stand-Alone, Client, Server, interface: Ethernet (2 x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C, communication protocol: OCPP 1.6J, Modbus/TCP, MQTT, Connectable peripheral devices: Energy meter, RFID, DC residual current detection, DIN rail mounting

EV-T2M3SO12-4P-P - Infrastructure charging socket



1164299

<https://www.phoenixcontact.com/in/products/1164299>

CHARX SEC-3150 - AC charging controller

1138965

<https://www.phoenixcontact.com/in/products/1138965>



CHARX control modular, AC charging controller, with Embedded Linux system, IEC 61851-1, ISO 15118, operating mode: Stand-Alone, Client, Server, interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C, communication protocol: OCPP 1.6J, Modbus/TCP, MQTT, Connectable peripheral devices: Energy meter, RFID, DC residual current detection, DIN rail mounting

EM-CP-PP-ETH - AC charging controller

2902802

<https://www.phoenixcontact.com/in/products/2902802>



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

EV-T2M3SO12-4P-P - Infrastructure charging socket



1164299

<https://www.phoenixcontact.com/in/products/1164299>

VAL-EV-T1/T2 264/12.5/3+1 - Lightning/surge arrester type 1/2

1180149

<https://www.phoenixcontact.com/in/products/1180149>



CHARX protect advanced: Plug-in lightning surge/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

VAL-EV-T1/T2 264/12.5/3+1-R - Lightning/surge arrester type 1/2

1180150

<https://www.phoenixcontact.com/in/products/1180150>



CHARX protect advanced: Plug-in lightning surge/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

EV-T2M3SO12-4P-P - Infrastructure charging socket



1164299

<https://www.phoenixcontact.com/in/products/1164299>

VAL-EV-T2 280/3+1 - Type 2 surge arrester

1180144

<https://www.phoenixcontact.com/in/products/1180144>



CHARX protect basic: Plug-in surge protective device, in accordance with Type 2/Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

VAL-EV-T2 280/3+1-R - Type 2 surge arrester

1180145

<https://www.phoenixcontact.com/in/products/1180145>



CHARX protect basic: Plug-in surge protective device, in accordance with Type 2/Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in